

CLAIMS

1. A method for securing scrambled data supplied to a plurality of receiver terminals, each of said terminals comprising a plurality of descrambling modules  $M_j$  ( $j = 1..M$ ), each having a specific processing capacity and a specific level of security, said data  
5 being previously subdivided into  $M$  families  $F_j$  ( $j = 1..M$ ), each comprising  $N$  blocks  $B_i$  ( $i=1..N$ ) :  
each block  $B_i$  ( $i = 1..N$ ) of a family  $F_j$  being scrambled by a key  $K_j$  ( $j = 1..M$ ) associated with the family  $F_j$ ,  
10 said method characterised in that said blocks  $B_i$  ( $i = 1..N$ ) are previously organised as a function of the respective processing speeds of the descrambling modules  $M_j$ .

15 2. The method as claimed in claim 1, characterised in that the modules  $M_j$  ( $j = 1..M$ ) are different peripheral elements associated with said receiver terminal.

20 3. The method as claimed in claim 2, characterised in that the descrambling modules  $M_j$  ( $j = 1..M$ ) comprise different algorithms  $A_j$  ( $j = 1..M$ ).

25 4. The method as claimed in claim 2, characterised in that the descrambling modules  $M_j$  ( $j = 1..M$ ) comprise identical algorithms  $A_j$  ( $j = 1..M$ ).

5. The method as claimed in any one of Claims 1 to 4, characterised in that the data to be distributed are in the form of a previously stored file.

5        6. The method as claimed in any one of claims 1 to 4, characterised in that the data to be secured are in the form of a broadcast or downloaded stream and processed in real time by the terminal.

10       7. The method as claimed in claim 5 or 6, characterised in that the duration of use of the stream is divided into crypto periods, each corresponding to a descrambling key, and in that prior to each start of the crypto period a message is inserted into the stream  
15 so as to warn the descrambling module Mj of the change in crypto period.

8. The method as claimed in claim 7, characterised in that said message comprises all information  
20 necessary for descrambling the stream utilised during the following crypto period.

9. The method as claimed in any one of claims 1 to 8, characterised in that said data represent audio  
25 and/or video programs protected by a DRM system.

10. The method as claimed in any one of claims 1 to 8, characterised in that said data represent images synthesis or anim  drawings.

11. A system for securing scrambled data supplied to at least one receiver terminal, characterised in that it comprises:

a scrambling platform comprising:

- 5       - means for subdividing said data into m distinct families of N blocks  $B_i$  ( $i = 1 \dots N$ ),
- means for assigning each family  $F_j$  a specific identification parameter  $p_j$  ( $j = 1 \dots M$ ) associated with at least one descrambling module  $M_j$  having a specific processing capacity and a specific level of security,
- 10       - means for scrambling each block  $B_i$  by a key  $K_j$  ( $j = 1 \dots M$ ) in biunivocal relation with the parameter  $p_j$ ,

      and a descrambling platform comprising means for

15       identifying the family of each block  $B_i$  so as to descramble each block  $B_i$  of a family of type  $p_j$  by the module  $M_j$  corresponding to said parameter  $p_j$ .

12. The system as claimed in claim 11,

20       characterised in that the descrambling distinct modules  $M_j$  ( $j = 1 \dots M$ ) are distinct peripherals associated with the receiver terminal.

13. A scrambling platform for a stream of data,

25       characterised in that it comprises:

- means for subdividing said stream into m distinct families of N blocks  $B_i$  ( $i = 1 \dots N$ ),
- means for assigning each family a specific identification parameter  $p_j$  ( $j = 1 \dots M$ ) associated with
- 30       at least one descrambling module  $M_j$  having a specific processing capacity and a specific level of security,

- means for scrambling each block  $B_i$  by a key  $K_j$  ( $j = 1 \dots M$ ) in biunivocal relation with the parameter  $p_j$ .

5        14. The descrambling platform for a stream of data scrambled by the platform of Claim 13, characterised in that it comprises means for identifying the family of each block  $B_i$  so as to descramble each block  $B_i$  of a family of type  $p_j$  by the module  $M_j$  corresponding to  
10        said parameter  $p_j$ .

15        15. The descrambling platform as claimed in claim 14, characterised in that it comprises a plurality of distinct descrambling modules  $M_j$  ( $i = 1 \dots M$ ) each identified by the specific identification parameter  $p_j$ .

16. The descrambling platform as claimed in claim 15, characterised in that the receiver terminal is a PDA and in that one of said descrambling modules  $M_j$  ( $i = 1 \dots M$ ) is integrated into the PDA and at least a  
20        second module is a smart card of SIM type connected to said PDA.

25        17. Utilisation of the process as claimed in any one of claims 1 to 8 for securing a video-on-demand service (VOD).

30        18. Utilisation of the process as claimed in any one of claims 1 to 8 for securing a music-on-demand service (MOD).

19. Utilisation of the process as claimed in any one of claims 1 to 8 for securing access to a broadcast service for electronic books either online or downloaded from portable media.